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This application contains claims directed to the following patentably distinct species of the claimed invention: various genes from the HIV-1 genome of the instant application.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103 of the other invention.

In a telephone conversation with Mr. Kenneth Meyers on April 4, 1990, applicant elected the species of claims 29 and 30 (old claims 32 and 33), a DNA sequence comprising the gp120 gene of the HIV-1 genome.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103.

Claim 29 is rejected under 35 U.S.C. 112, first paragraph, as the disclosure is enabling only for claims limited the entire sequence set forth in Claim 29. See MPEP 706.03(n) and 706.03(z).

Applicant has not taught all DNA which contains "at least a portion" of the sequence of Claim 29. It would require undue experimentation by one of ordinary skill in the art to determine which sequences are being claimed, as this terminology effectively claims an enormous number of possible DNA sequences, most of which are anticipated by the prior art.

Claims 29 and 30 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 is vague and indefinite in scope in the recitation of "at least a portion of the sequence" for failing to specifically point out which sequence or portion of the sequence is being claimed.

Lulipe At The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

"A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent."

Claim 29 is rejected under 35 U.S.C. § 102 (a) as being anticipated by Ratner, et al.

Ratner, et al. teach the sequence of one strain of HIV-1. The sequences taught by Ratner, et al. are 89% homologous with the sequences of the instant application.

The sequence taught by Ratner, et al. anticipates "a portion of" the sequence of Claim  $29.3\,\circ$ 

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 30 is rejected under 35 U.S.C. 103 as being unpatentable over Ratner, et al.

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Ratner, et al. teach the sequence of one strain of HIV-1. The sequences taught by Ratner, et al. are 89% homologous with the sequences of the instant application.

It would have been obvious to one of ordinary skill in the art to screen a DNA library derived from T cells from patients suffering from AIDS with oligonucleotide probes based on the sequence taught by Ratner, et al. to obtain the gp120 DNA sequences of the instant application. Providing a certified translation of the priority document will obviate this rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Beth A. Burrous, Ph.D. whose telephone number is 703-557-3742. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 703-557-0664.

bab/07, June 1990